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February 4, 1999

VIA HAND DELIVERY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals TW-A325
445 12th Street, S.W.
Washington, DC 20554

Re: ET Docket No. 98-153
Reply Comments of KROHNE, INC.
Our File 04986/002001

Dear Ms. Salas:

Enclosed please find an original and four copies of reply comments for Krohne, Inc. in the above-captioned proceeding.

Please contact the undersigned counsel if you have any questions regarding this matter.

Very truly yours,

Terry G. Mahn

Enclosures

cc: Mr. R. Barclay Beahm, KROHNE, INC.

95185.W11

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems	)	Docket No. 98-153

Reply Comments of KROHNE, INC.

KROHNE, INC., by its attorneys, hereby submits these Reply Comments in the above-captioned Notice of Inquiry (NOI).

KROHNE is a leading worldwide manufacturer of tank level radar technology, a safe and low cost means of precisely measuring the levels of materials in various types of storage tanks and other process vessels. Comments filed in this proceeding by other tank radar manufacturers have extolled the public benefits of microwave transmission technology as compared to older tank measuring methods[1] and have called for a relaxation of rules that restrict, or unnecessarily increase, the cost of this technology. KROHNE wishes to add its voice to the debate by urging the Commission to move forward with rules that will permit low power swept frequency radar devices to emit within the restricted bands without the requirement of formal site licensing.

[1] See Comments of SAAB Marine Electronics AB, at 1; Comments of Magnetrol International, at 1; Comments of Endress + Hauser GmbH & Co., at 2; and Comments of Rosemount Measurement.

I. KROHNE Technology is Widely Used With No Reports of Interference

In 1992, KROHNE appeared before the Commission requesting authorization for what was then a novel technology used to measure petroleum, chemicals and many other liquids as well as solids in storage tanks and other process vessels, such as reactors in a wide variety of industries. Considerably safer and more accurate than many other non-contact tank measuring technologies, KROHNE's device uses a frequency modulated signal (FMCW) that is swept between 8.5 and 9.9 GHz. Because this region also includes two restricted bands, however, KROHNE's device could not be certified under the Commission's Part 15 rules, despite the fact that its emissions were below the Class B limits when measured outside the tank. Working with NTIA and the Commission's staff, KROHNE sought and obtained various rule waivers to allow its radar devices to be sold in the U.S. but only under the explicit requirement that each users site had to obtain an individual Part 90 (private radio) license.

Although the result has been a very successful introduction of the KROHNE BM70 Tank Level Radar Gauge in the U.S., it has come at a licensing cost and inconvenience to KROHNE and its customers that can no longer be justified. In the seven years since KROHNE first began marketing the BM70, moreover, there has not been a single reported case of interference in or out of the restricted bands. Fully market-tested at hundreds of fixed sites inside sealed tanks, the BM70 is precisely the sort of over-regulated low power wideband emitter that this NOI should be addressing. KROHNE submits that the time is

now ripe for the Commission to discard the cumbersome and costly regulatory "red tape" that accompanies its BM70 sales.

II. Low Power Tank Radar Standards Should Be Harmonized

For the reasons noted, wideband swept frequency devices should not be precluded from sweeping through restricted bands as long as the emission limits do not raise interference concerns beyond those already tolerated from other types of Part 15 emitters. In this regard, swept frequency devices have no greater propensity to aggregate emissions than other wideband emitters, and in the case of swept frequency tank radars, they actually have a much lower propensity to aggregate emissions due to the physical constraints imposed by the tanks in which they operate.[2]

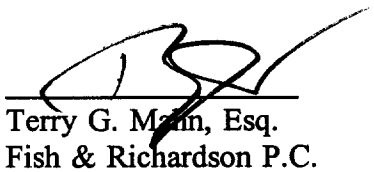
KROHNE urges, therefore, that wideband tank level radars sweeping thorough restricted bands be subject, at most, to a certification requirement -- as opposed to site licensing -- provided they meet the following emission limits:

- 10 mW total power measured at the transmitter's output terminals; and
- -45 dBm EIRP, measured outside the tank.

[2] Endress + Hauser's recommendation that FMCW devices be subject to cumulative limits or other such "restriction" is without technical or policy justification, and should be rejected. See Comments of Endress + Hauser, at 5. Krohne assumes the recommendation to treat FMCW differently applies to devices which are capable of being located in close proximity to each other -- clearly not a possibility with tank radars.

KROHNE's proposal will achieve restricted band parity among low power Part 15 radiators and will bring the U.S. into harmony with European and other international requirements for the benefit of the public.

Respectfully submitted



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February 4, 1999

95067.W11

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems	)	Docket No. 98-153

CERTIFICATE OF SERVICE

The undersigned hereby swears that on February 4, 1999, a copy of the foregoing REPLY COMMENTS OF KROHNE, INC. was deposited in the U.S. first class mail, postage prepaid, addressed to the following:

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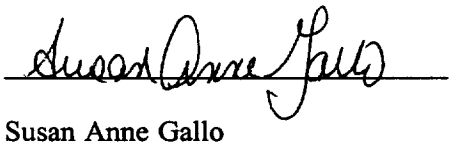

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